REMARKS

A check in the amount of $100 is enclosed to cover the official fee, on the small entity basis, for the one (1) independent claim in excess of three (3) independent claims.

The present Response is submitted in reply to the Official Action of May 23, 2007.

The Examiner first objects to the drawings of the present Application as not showing the elements recited in claims 31 and 32. Upon review of the claims, the Applicant notes that claims 31 and 32 recite elements commonly known in the prior art, that is, the use of bayonet connections and latches to secure to mechanical parts together, and that the correction of the drawings by adding such elements to the drawings would thereby not add any new matter to the present invention, disclosure or claims. The Applicant also notes, however, that the elements recited therein are not essential to the present invention as recited in the claims but merely serve to further define specific embodiments of the invention as recited therein. As such, and in order to advance the prosecution of the present Application, the Applicant has elected to cancel claims 31 and 32 without prejudice to the subject matter therein. In view of the above, the Applicant therefore respectfully requests that the Examiner reconsider and withdraw all objections to the drawings.

With regards the claims, it must first be noted that the Examiner indicates, in the outstanding Official Action, that claims 1-35 are presently pending in the Application and accordingly rejects claims 1-35 for various reasons. It must be noted, however, that only claims 19-35 are currently pending in this Application while claims 1-18 were canceled with the addition of new claims 19-35 in the Preliminary Amendment filed on 11 March 2005. The above claim amendments and the following remarks will therefore address the present Official Action on the basis that only claims 19-35 are pending.

Now considering the claims under consideration, claims 1-15 and 19-32 are rejected, under 35 U.S.C. § 103(a), over Schmidt `815 in view of any of Corfits et al. `830,

Bixler et al. `171 or Gibbs et al. `570, while claims 16-18 and 33-35 are rejected, under 35 U.S.C. § 103(a), over Schmidt `815 in view of any of Corfits et al. `830, Bixler et al. `171 or Gibbs et al. `570 and in further view of EP 574471--which is the equivalent of PCT/EP92/00372 and corresponding PCT Publication No. WO 92/16002. The Applicant acknowledges and respectfully traverses all of the raised obviousness rejections in view of the above claim amendments and the following remarks.

It should first be noted that the subject matter of claims 19 and 21 is revised and respectively rewritten as new claims 36 and 37 and as new claims 38 and 39 with corresponding amendments to the claims dependent thereof also being entered. It must be noted that new claims 36 and 37 and new claims 38 and 39 are directed to the same elements, recitations and limitations claims 19 and 21, and thus are essentially a restatement of the subject matter of claims 19 and 21, respectively. Claims 36 and 37 and claims 38 and 39 comprise variant or alternate readings of the subject matter of the present invention, and are distinguished over the cited prior art for essentially the same reasons, but provide alternate expressions of the presently claimed invention. It must also be noted that these amendments are fully supported by the specification, the drawings and the claims as originally filed and do not add any new matter to the invention, the specification, the drawings or the claims.

Turning now to the present invention, as recited in claims 20 and 22-39, and the cited prior art, the present invention is directed to a method and apparatus for establishing electrical connections between an electrical transmitter unit 1 and an electrical receiving unit 3 by guiding the electrical contacts 2, 4 of the transmitter unit 1 into contact with the electrical contacts 2, 4 of the receiving unit 3.

As recited in claims 36 - 39, the connection apparatus of the present invention and the connection method employing that apparatus include mating electrical contact elements 2, 4 located in corresponding opposing positions in the transmitter unit 1 and the receiver unit 3.

The contact elements 2, 4 are formed of magnetic bodies having flat contact surfaces 7 and the magnetic polarities of each pair of opposing contact elements 2, 4 are oppositely oriented so that the magnetic fields of each opposing pair of contact elements 2, 4 attract the contact elements 2, 4 toward each other to form a contact between the contact surfaces 7 of each opposing pair of contact elements 2, 4.

According to the present invention, as recited in independent claims 36, 37, 38 and 39, the connection apparatus further includes at least one mechanical approximate positioning guide 9, 10 or 11a, 11b that includes a first approximate positioning guide element 9 or 11a on the transmitter unit 1 and corresponding and mechanically mating second approximate positioning guide element 9 or 11a on the receiver unit 3 and a transmitter unit 1. The positioning tolerance in the mechanical mating relationship between the first and the second positioning guide elements 9 or 11a and 10 or 11b is sufficient to bring the magnetic fields of each opposing pair of contact elements 2, 4 into a range to attract each other, but is insufficient to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection between the contact elements 2, 4.

According to the present invention, the at least one mechanical approximate positioning guide provides an initial positioning of the transmitter unit 1 and the receiving unit 3 to bring the magnetic fields of the corresponding contact element 2, 4 into an interacting position and the magnetic fields of the contact elements 2, 4 perform a final alignment of the contact elements 2, 4 to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection.

Now considering the teachings of the cited prior art references and referring first to Schmidt `815, it should first be noted that the above identified application previously incorporated the disclosure of Schmidt `815 therein, such as at paragraph [034] wherein the Applicant incorporates by reference the contents of PCT Publication No. WO 01/03249, which

corresponds to U.S. Patent No. 6,561,815 (Schmidt `815) and the German priority patent application DE 199 30 642. It should also be noted, in this regard, that the present Application shares a common inventor with original German patent application DE 199 30 642, PCT Publication No. WO 01/03249 and Schmidt `815, and is assigned to the same owner as Schmidt `815, namely, Magcode AG, so that Schmidt `815 was and is not invented or owned by another and thus is not a valid prior art reference under the requirements and provisions of 35 U.S.C. § 102. In the event that a Terminal Disclaimer is deemed necessary, please advise and the undersigned will enter the same into the record of this case. The following will, however, discuss Schmidt `815 in the same manner as the cited prior references to explicitly point out the describe relationship between Schmidt `815 and the present invention.

As will be noted from a review of the present Application and Schmidt `815, the present invention as recited in claims 36, 37, 38 and 39 is fully distinguished over and from the teachings of Schmidt `815 for a number of reasons. Schmidt `815 relates to an electromechanical connecting device for achieving greater control of the contact forces between the contact elements and, in particular, to achieve higher and more precisely controlled contact forces. For this purpose, each pair of contacts or each group of three contact elements has a corresponding magnetic body that individually controls the contact pressures of the corresponding pair or group of contacts.

Schmidt `815 is thereby directed to a magnetically actuated mechanism for controlling the contact pressure between pairs or groups of contacts and, in fundamental contrast from the recited mechanism and method of the present invention, is not a mechanism for guiding contacts into contact with one another. The mechanism described by Schmidt `815 is thereby fully distinguished from the present invention because the Schmidt `815 mechanism is solely directed to a *contact actuation mechanism* while the present invention is directed to a *contact guidance mechanism*.

In this regard, it must first be noted that the Schmidt `815 structure is solely magnetic in operation and that Schmidt `815 does not include, teach or suggest any form of mechanical structure or mechanism for *guiding* the contact elements of the mateable connectors into contact with one another.

Schmidt `815 therefore and thereby does not teach, suggest or disclose a connection apparatus having

(a) at least one mechanical approximate positioning guide 9, 10 or 11a, 11b that includes a first approximate positioning guide element 9 or 11a on the transmitter unit 1 and corresponding and mechanically mating second approximate positioning guide element 9 or 11a on the receiver unit 3 and a transmitter unit 1, or that

(b) the positioning tolerance in the mechanical mating relationship between the first and second positioning guide elements 9 or 11a and 10 or 11b should be sufficient to bring the magnetic fields of each opposing pair of contact elements 2, 4 into a range to attract each other but insufficient to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection between the contact elements 2, 4.

In addition, however, it must be noted that the Schmidt `815 magnetic mechanism does not and cannot act upon the contact elements 2, 4 in such a way as to perform any form of alignment, final or otherwise, of the contact elements 2, 4 of the mateable connectors. As clearly described by Schmidt `815 and as clearly apparent from the figures in Schmidt `815, the mounting of the contact elements 2, 4, on the elastic wall 8, prevents any lateral movement of the contact elements 2, 4 such as would be required to align the contact elements 2, 4 of one contact mechanism with the contact elements 2, 4 of the other contact mechanism. It is instead clearly shown and taught that the contact elements 2, 4 are allowed to move only in the vertical direction, that is, at right angles to the planes of the contact surfaces 7. It is apparent, and in full agreement with the disclosure and teachings of Schmidt `815, that this is the direction of

movement that is necessary if the function of the mechanism is to move a set of contacts from a non-contact position to a position where they can come into contact with another set of contacts rather than aligning one set of contacts with another set of contacts.

The present invention, as recited in claims 36, 37, 38 and 39, is thereby also fully distinguished over and from Schmidt `815 under the requirements and provisions of 35 U.S.C. § 103 because, as discussed above, Schmidt `815 does not teach, suggest or disclose any form magnetic positioning or alignment mechanism to perform a final alignment, or any other form of alignment, of the contact elements 2, 4 so that the contact surfaces 7 of the contact elements 2, 4 can come into mechanical contact to form an electrical connection.

Turning now to Corfits et al. `830, this reference relates to and describes a connection structure for guiding a system component into connection, including electrical connections, within an enclosure, including blind establishment of electrical connections between the system component and a connector in the enclosure. The connection structure includes three successively operating mechanical positioning mechanisms to establish connections between an electrical connector on the system component and a mating electrical connector of the enclosure. The first positioning mechanism is a mechanical coarse positioning means using guide rails to first guide the system component toward mounted position in the enclosure and the second positioning mechanism is a mechanical intermediate positioning means using a tapering protruding element and a corresponding receiving opening in the system component and the enclosure, respectively, to align an electrical connector on the system component with an electrical connector in the enclosure. The third positioning mechanism is a mechanical fine positioning means comprising a plurality of tapering surfaces and corresponding mating surfaces formed on the electrical connectors of the system component and the enclosure to guide the electrical connector of the system component into contact with the electrical connector of the enclosure.

It is, therefore, apparent that the present invention, as recited in claims 36, 37, 38 and 39, is fully and patentably distinguished over and from the teachings of Corfits et al. `830 for a number of fundamental reasons. For example, the Corfits et al. `830 mechanism employs and requires three successive alignment mechanisms, that is, a coarse alignment mechanism, an intermediate alignment mechanism and a fine alignment mechanism, while the present invention requires only two mechanisms, that is, an approximate alignment mechanism and a final alignment mechanism.

Further, the present invention employs an initial mechanical alignment mechanism that guides the contacts into an approximate alignment with each other followed by a final magnetic alignment mechanism that guides the electrical contacts into actual contact with each other. In complete and fundamental contrast and distinction from the present invention as recited in the claims, however, Corfits et al. `830 not only uses three alignment mechanisms rather than one, but all three alignment mechanisms of the Corfits et al. `830 system are purely mechanical in structure and operation and Corfits et al. `830 does not teach and does not even suggest that a magnetic alignment mechanism would be possible.

Further in this regard, it must be noted that in the Corfits et al. `830 mechanism the contact elements are structurally and functionally separate from the three guidance mechanisms and have no actual structural or functional role in establishing the electrical connections other than the purely passive role of making electrical contact once they have been moved from the initial position to their final position. Stated another way, in Corfits et al. `830 the guidance mechanisms perform all of the structural and functional operations necessary to carry the contact elements to their final location and the contacts are merely carried from an initial position to a final position by the three guidance mechanisms acting in sequence.

In the mechanism and method of the present invention, however, and in complete and fundamental contrast from the Corfits et al. `830 mechanism, the contact elements themselves,

that is, the magnetic bodies bearing the contact surfaces, play an active structural and functional role in the operation of the mechanism because the contact elements magnetically interact with each other to guide themselves into contact. It will be noted in this regard, that this distinction highlights the above discussed distinction between Corfits et al. `830 and the present invention in that the Corfits et al. `830 mechanism does not include any form of magnetic component or operation and Corfits et al. `830 does not even suggest the use of magnetic components in any form or function.

The present invention, as recited in claims 36, 37, 38 and 39, is thereby fully distinguished over and from Corfits et al. `830 , under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Corfits et al. '830 does not teach or suggest mating electrical contact elements 2, 4 located in corresponding opposing positions in the transmitter unit 1 and the receiver unit 3, or that the contact elements 2, 4 should be formed of magnetic bodies having flat contact surfaces 7 wherein the magnetic polarities of each pair of opposing contact elements 2, 4 are oppositely oriented so that the magnetic fields of each opposing pair of contact elements 2, 4 attract the contact elements 2, 4 toward each other to form a contact between the contact surfaces 7 of each opposing pair of contact elements 2, 4.

The present invention, as recited in claims 36, 37, 38 and 39, is further fully distinguished over and from Corfits et al. '830, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Corfits et al.'830 does not teach or suggest that the mechanical approximate positioning guide should provide an initial positioning of the transmitter unit 1 and the receiving unit 3 to bring the magnetic fields of the corresponding contact element 2, 4 into an interacting position and that the magnetic fields of the contact elements 2, 4, rather than any form of mechanical positioning or alignment mechanism, should perform a final alignment of the contact elements 2, 4 to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection.

Turning now to the teachings of Bixler et al. `171, this reference relates to an electrical connector assembly comprising first and second electrical connectors wherein one electrical connector includes a linear array of electrical contacts and the other includes a matching linear array of electrical contact receptacles so that when the first electrical connector is mated with the second electrical connector, the electrical contacts of the first connector mate into and make electrical contact with the corresponding electrical receptacles of the second electrical connector. Bixler et al. `171 further describes that the first and the second connectors include polarizing posts and receptacles that allow the first and the second connectors to be mated in only one way, and that the edges of the connectors, the electrical connectors and receptacles and posts and post receptacles are beveled to assist in blind mating of the connectors by providing some guidance when there is a relatively small mismatch between the alignments of the connectors.

It is, therefore, apparent that not only are there a large number of significant and fundamental distinctions between the present invention as recited in claims 36, 37, 38 and 39 and the teachings of Bixler et al. `171 under the requirements and provisions of 35 U.S.C. § 103, but that Bixler et al. `171, in fact, has no pertinence or relevance at all to the present invention. For example, the Bixler et al. `171 connector assembly has no magnetic components or magnetically operating components at all.

In addition, the Bixler et al. `171 connector assembly has only very minor contact alignment structure and functions, specifically a slight bevel on the parts so that they slide together more easily and mechanical polarizing posts that allow the two connectors to be mated in only one orientation. In this regard, it must be noted that the primary purpose of the Bixler et al. `171 mechanism is not to provide guidance in mating the two connectors, but is to prevent mating the two connectors in any orientation but the one, desired orientation.

The present invention, as recited in claims 36, 37, 38 and 39, is thereby fully distinguished over and from Bixler et al. `171, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Bixler et al. `171 does not teach or suggest mating electrical contact elements 2, 4 located in corresponding opposing positions in the transmitter unit 1 and the receiver unit 3, or that the contact elements 2, 4 should be formed of magnetic bodies having flat contact surfaces 7 wherein the magnetic polarities of each pair of opposing contact elements 2, 4 are oppositely oriented so that the magnetic fields of each opposing pair of contact elements 2, 4 attract the contact elements 2, 4 toward each other to form a contact between the contact surfaces 7 of each opposing pair of contact elements 2, 4.

The present invention, as recited in claims 36, 37, 38 and 39, is further fully distinguished over and from Bixler et al. `171, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Bixler et al. `171 does not teach or suggest that the mechanical approximate positioning guide should provide an initial positioning of the transmitter unit 1 and the receiving unit 3 to bring the magnetic fields of the corresponding contact element 2, 4 into an interacting position and that the magnetic fields of the contact elements 2, 4, rather than any form of mechanical positioning or alignment mechanism, should perform a final alignment of the contact elements 2, 4 to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection.

Next considering the teachings of Gibbs et al. `570, this reference relates to an electro-mechanical interconnect system for mounting an assembly onto the vehicle wherein the system may include electrical connections between the assembly and the electrical wiring of the vehicle. Gibbs et al. `570 describes a wide range of methods and means for attaching the assembly to the vehicle and a correspondingly wide range of methods and means for providing electrical connections between the assembly and the vehicle.

All of the assembly mounting methods and means and all of the electrical connections methods and means, however, have certain characteristics in common. First, the means by which the assembly is mounted to the vehicle is essentially separate from the means by which the electrical connections are formed, as evidenced by the wide range of combinations of mounting means and electrical connector means described by Gibbs et al. `570. In addition, and even more basically, all of the assembly mounting means and all of the electrical connection means are purely mechanical and Gibbs et al. `570 does not teach, show or even suggest or hint that either the mounting means or the electrical contact means could be magnetic in nature.

The teachings of Gibbs et al. `570 are further characterized in that while the mounting means and the electrical connection means may be arranged such that mounting the assembly to the vehicle will cause the electrical connections to be made, such as by resilient conductor strips that are brought into contact with each other when the assembly is fitted to the vehicle, there is no teaching or suggestion that the assembly mounting means and the electrical connection means do or could form a cooperative, sequentially operating, two stage mechanism for guiding electrical contacts into contact with one another. For example, and as clearly described by Gibbs et al. `570, in many implementations the electrical connection means is structurally and functionally separate from the assembly mounting means, such as when the electrical connection means is a plug and socket assembly that are mated before the assembly is mounted to the vehicle.

The present invention, as recited in claims 36, 37, 38 and 39, is thereby fully distinguished over and from Gibbs et al. `570, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Gibbs et al. `570 does not teach or suggest mating electrical contact elements 2, 4 located in corresponding opposing positions in the transmitter unit 1 and the receiver unit 3, or that the contact elements 2, 4 should be formed of

magnetic bodies having flat contact surfaces 7 wherein the magnetic polarities of each pair of opposing contact elements 2, 4 are oppositely oriented so that the magnetic fields of each opposing pair of contact elements 2, 4 attract the contact elements 2, 4 toward each other to form a contact between the contact surfaces 7 of each opposing pair of contact elements 2, 4.

The present invention, as recited in claims 36, 37, 38 and 39, is further fully distinguished over and from Gibbs et al. `570, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, Gibbs et al. `570 does not teach or suggest that the mechanical approximate positioning guide should provide an initial positioning of the transmitter unit 1 and the receiving unit 3 to bring the magnetic fields of the corresponding contact element 2, 4 into an interacting position and that the magnetic fields of the contact elements 2, 4, rather than any form of mechanical positioning or alignment mechanism, should perform a final alignment of the contact elements 2, 4 to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection.

Finally, EP 574471--which is equivalent to PCT/EP92/00372 and corresponds to PCT Publication No. WO 92/16002--describes a magnetically actuated switch that is similar in structure and operation to that described by Schmidt `815. EP 574471 describes a magnetically actuated switch 4 that is actuated by a magnetic trigger device 3 wherein the switch 4 includes a pair of magnets 5, 6 mounted on a tray 7 that is resiliently biased into a non-actuated position by a pair of springs 12 and wherein a lower side of each magnet 5, 6 is connected to a circuit lead 11. An upper side of each magnet 5, 6 will contact a corresponding contact element 17, 18 located on the upper side of the switch 4 to complete a connection between the circuit leads 11 and a pair of contact plates 17, 18 on the upper side of the switch 4 when the magnets 5, 6 are moved to an upper, actuated position by the magnetic fields of a pair of corresponding trigger magnets 14, 15 in the trigger device 3 when the trigger device 3 is moved into proximity with the switch 4.

It is, therefore, apparent that the teachings of EP 574471 are generally similar to those of Schmidt `815. EP 574471 is distinguished from Schmidt `815, however, in a couple of structural and functional aspects. For example, in the EP 574471 switch 4 the moveable magnets 5, 6 are biased into the un-actuated, non-contact position by springs rather than be an elastic wall.

More fundamentally, however, EP 574471 is also distinguished from Schmidt `815 in that in the EP 574471 switch 4, the circuit elements and circuit contact connections are all located entirely within the switch 4 component and the trigger device 3 and trigger magnets 14, 15 serve only to trigger the operation of the switch 4. In the EP 574471 switch, therefore, the trigger magnets 14, 15 of the trigger device 3 thereby do not form a part of the circuit connections while in the Schmidt `815 device the circuit connections are made between the two connector components of the connector assembly rather than solely within one component.

Considering EP 574471 in itself, this reference is directed to a magnetically actuated switch mechanism comprising a magnetically actuated switch and a magnetic trigger device whereupon moveable magnets located in the switch and connected to an electrical lead in the switch are moved from a first position to a second position by the magnetic fields of magnets in the trigger device to thereby contact conductive plates located in the switch and complete a circuit between the electrical lead and the conductive plates. In basic contrast from the present invention, therefore, the EP 574471 mechanism is not a mechanism for *guiding* contacts into contact with one another, but is instead a mechanism for magnetically *actuating* a magnetic switch with a magnetic trigger device to close an electrical connection within the switch.

It must first be noted that the EP 574471 structure is solely magnetic in operation and that EP 574471 does not include, teach or suggest any form of mechanical structure or mechanism for guiding the contact elements of the mateable connectors into contact with one

another. EP 574471, therefore and thereby, does not teach, suggest or disclose a connection apparatus having at least one mechanical approximate positioning guide 9, 10 or 11a, 11b that includes a first approximate positioning guide element 9 or 11a on the transmitter unit 1 and corresponding and mechanically mating second approximate positioning guide element 9 or 11a on the receiver unit 3 and a transmitter unit 1.

EP 574471, in fact, does not include and does not require either approximate or a final position guide structures because the EP 574471 mechanism does not operate to guide two separate components into a contact position with each other and the position and operation of the trigger device 3 is, in fact, immaterial with regard to guiding the magnets 5, 6 into contact with the conductive plates 17, 18. In this regard, the movement of the two magnets 5, 6 in the switch 4 is guided solely by the internal structure of the switch 4 component and not in any way by the magnets 14, 15 of the trigger device 3.

As a result, the EP 574471 switch does not include or even suggest the use of any form of approximate positioning structure or mechanism because such a structure or mechanism would serve no real purpose in the EP 574471 switch. For this reason, EP 574471 does not teach or suggest the use of first and second positioning guide elements 9 or 11a and 10 or 11b as in the present invention as recited in the claims, or, as further recited in the claims, that the positioning tolerance in the mechanical mating relationship between the first and second positioning guide elements 9 or 11a and 10 or 11b should be sufficient to bring the magnetic fields of opposing pairs of contact elements 2, 4 into a range to attract each other but insufficient to bring the contact surfaces 7 of the contact elements 2, 4 into mechanical contact to form an electrical connection between the contact elements 2, 4.

In addition, however, it must be noted that the EP 574471 magnetic mechanism does not and cannot act upon the magnetic elements 5, 6 in such a way as to perform any form of alignment, final or otherwise, of the magnetic elements 5, 6. As clearly described by

EP 574471 and as clearly apparent from the Figures in EP 574471, the mounting of the magnetic elements 5, 6 on the tray structure and the confinement of the movement of the magnetic elements 5, 6 to vertical movement in a well-like structure prevents any lateral movement of the magnetic elements 5, 6 such as would be required to align the magnetic elements 5, 6 with the conductive plates 17, 18. It is instead clearly shown and taught that the magnetic elements 5, 6 are allowed by these structural elements to move only in the vertical direction, that is, at right angles to the planes of the conductive plates 17, 18. As discussed with regard to Schmidt `815, this is the direction of movement that is necessary if the function of the mechanism is to move a set of contacts from a non-contact position to a position where they can come into contact with the conductive plates to complete a circuit within the switch 4 rather than to align the magnetic elements 5, 6 with other elements of the switch 4 structure.

The present invention, as recited in claims 36, 37, 38 and 39, is thereby also fully distinguished over and from EP 574471, under the requirements and provisions of 35 U.S.C. § 103, because, as discussed above, EP 574471 does not teach, suggest or disclose any form of magnetic positioning or alignment mechanism to perform a final alignment, or any other alignment, of the contact elements 2, 4 so that the contact surfaces 7 of the contact elements 2, 4 can come into mechanical contact to form an electrical connection. The present invention as recited in claims 36, 37, 38 and 39 is thereby fully distinguished over and from EP 574471 under the requirements and provisions of 35 U.S.C. § 103 for at least the reasons discussed above.

Now considering the combinations of Schmidt `815, Corfits et al. `830, Bixler et al. `171 or Gibbs et al. `570 and Schmidt `815 in view of any of Corfits et al. `830, Bixler et al. `171, Gibbs et al. `570 and in further view of EP 574471, it will be apparent from the above discussions that of all these references, that the Schnidt `815 and EP 574471 references only have teachings pertaining to the use of magnetic elements in forming electrical connections

while the Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 references only have teachings pertaining to the use of mechanical structures in forming electrical connections.

For at least this reason, therefore, Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 have no teachings that are pertinent or relevant to either Schmidt `815 or EP 574471, and Schmidt `815 and EP 574471 have no teachings pertinent or relevant to any of Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570, and there is no suggestion of expressed need or benefit of such a combination in any of Corfits et al. `830, Bixler et al. `171, Gibbs et al. `570, Schmidt `815 or EP 574471. It is respectfully submitted that it would, therefore, not occur to one of ordinary skill in the arts to combine the teachings of any of Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 with either, or both, Schmidt `815 and/or EP 574471.

The following will considering the results of such a combination, however, with the explicit understanding that the following discussions are solely for purposes of discussion and without any express or implied admission, concession or agreement by the Applicant as to either the possibility or probable outcome of a combination of the references as suggested by the Examiner.

It is first apparent that a combination of any or all of Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 with either, or both, of Schmidt `815 and/or EP 574471 would require the combination of a mechanical guidance component from one or more of Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 and a magnetic mechanism from one or both of Schmidt `815 and EP 574471 because Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 describe only mechanical mechanisms and Schmidt `815 and EP 574471 describe only magnetic mechanisms.

Even if it were assumed that one or more of Corfits et al. `830, Bixler et al. `171 and Gibbs et al. `570 could be interpreted to teach an initial and approximate mechanical alignment

mechanism, as with the presently claimed invention, with which the Applicant does not agree, neither of Schmidt `815 and EP 574471, taken individually or in combination, does or can teach or suggest a *magnetic final alignment mechanism* of the present invention for the reasons discussed in detail above. It is, therefore, the Applicant's belief and position that Schmidt `815, Corfits et al. `830, Bixler et al. `171, Gibbs et al. `570 and EP 574471, whether taken individually or in any permissible combination, do not and cannot teach or suggest the present invention as recited in claims 36, 37, 38 and 39, under the requirements and provisions of 35 U.S.C. § 103. It is further the Applicant's belief and position that because the dependent claims are all dependent from and thereby incorporate all of the recitations and limitations of one or the other of claims 36 and 37, the dependent claims are all likewise fully distinguished over the cited prior art under the requirements and provisions of 35 U.S.C. § 103. The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all rejections of the claims over the cited prior art, and the allowance of the claims as presented herein above.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Schmidt `815, Corfits et al. `830, Bixler et al. `171, Gibbs et al. `570 and/or the EP 574471 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant

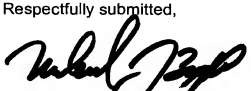
respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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